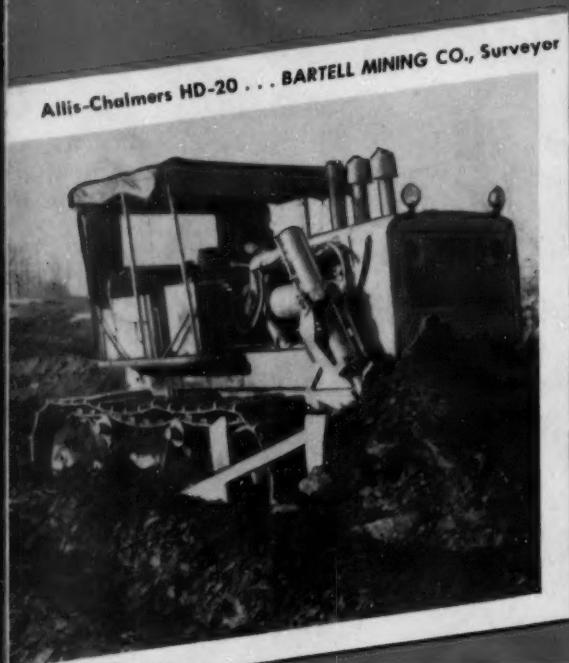


COAL MINING

AUGUST, 1954

UNIVERSITY MICROFILMS
313 N 1ST ST
ANN ARBOR, MICH

VOLUME 31, No. 8



Allis-Chalmers HD-20 . . . GILLELAND COAL CO., Uniontown



Lima 2400 . . . TORONTO COAL CO., Knoxville



Lima 2400 . . . DIAMOND T STRIPPING CO., Philipsburg



Highway EQUIPMENT COMPANY

6465 Hamilton Ave. • Pittsburgh, Pa.

ALLIS-CHALMERS • JAEGER • BAKER • GAR WOOD • MASTER
• THOR • WAYNE CRANE • GENERAL MOTORS DIESEL
ENGINES • LIMA SHOVELS, CRANES, DRAGLINES • ERIE BINS

THE SUPER 14-BU LOADER

Beats All Competition!



Here are the Figures...

Place: A large midwestern mine

Height of Seam: 56-58" Coal

Equipment: Joy Super 14-BU Loader,
served by 3 Shuttle Cars

Time: 20 consecutive shifts of operation,
as follows:

DATE	TONS LOADED
Oct. 30	785 tons
Nov. 2	786 "
" 4	810 "
" 5	841 "
" 6	911 "
" 9	837 "
" 10	779 "
" 11	793 "
" 12	783 "
" 13	827 "
" 16	709 "
" 17	718 "
" 18	752 "
" 19	797 "
" 23	732 "
" 24	771 "
" 27	708 "
" 30	812 "
Dec. 1	774 "
" 4	856 "

AVERAGE LOADED... 789 TONS/SHIFT

Note again the results of the performance test described at the left: *average production for 20 consecutive operating shifts of 789 tons loaded per shift.* The low was over 700 tons per shift; the high over 900 tons—a remarkably consistent performance.

Just to clear up the point for you, the figures shown are actual tonnages reduced by 10% to allow for spillage and for possible errors in computing room widths. Another important point: the total delay time on the machine for all 20 shifts was only 35 minutes. Joy equipment stays on the job, keeps working—costs you less in down-time and requires less maintenance.

To sum it all up, Joy machines will do the best job for you in keeping costs down and production rates up—no matter what your seam conditions are. Let us work with you. **Joy Manufacturing Company, Oliver Bldg., Pittsburgh 22, Pa.** In Canada: **Joy Manufacturing Company (Canada) Ltd., Galt, Ont.**

*Consult a Joy
Engineer*



JOY

WORLD'S LARGEST MANUFACTURER OF
UNDERGROUND MINING EQUIPMENT

CUT DRILLING COSTS!!!

BLAST HOLE AND COAL RECOVERY DRILLS



McCarthy Self-Propelled Horizontal Blast Hole Drills get in and out of tight quarters quickly; adjust on four individual leveling jacks for proper drilling heights. Excellent for low level work.



Truck Mounted Horizontal McCarthy Drills are breaking drilling records everywhere! All necessary equipment is carried with the unit — out of the mud at working level!

HYDRAULIC FEED



Instant-action control selects any speed up to 6 feet per minute.

FINGER-TIP CONTROL



Determines rotating speed of auger.



Here's a Vertical McCarthy Unit on a Half-Track. Compact construction makes McCarthy Drills perfect for all mountings... truck, half-track, cat, jumbo or other special rigs.

Heavy
Rugged
Powerful



Compact mobile-mount unit for vertical blast hole drilling. Retractable lower hydraulically operated. Setups are easy, drilling action positive, cuts drilling cost per foot.

McCarthy Coal Recovery Drills are revolutionizing both deep and strip mine operations. As the auger moves in, steady streams of clean coal are pulled out without touching the overburden. Average daily output ranges from 15 to 50 tons per man per shift. Many models are available. The machine illustrated above is equipped with a 36-inch auger, retriever, hoist and Lump Drill Head.



MCCARTHY DRILLS

If you haven't already seen a McCarthy at work, we suggest you see one quick!

These rugged, powerful units have gained universal acceptance as the most efficient machines ever made for drilling blast holes. Furnished with gasoline, electric or diesel power.

Extra heavy construction relieves you of maintenance troubles. They're versatile, fast, economical machines capable of 50% more productive service than any drill you might now be using!

Write Salem Tool today for full facts. Also ask about McCarthy Coal Recovery Drills—the machine that's being acclaimed in so many trade journals for its remarkable ability to reduce mining costs.

DRILLING EQUIPMENT SINCE 1901

MANUFACTURED BY



THE SALEM TOOL CO.

5. ELLSWORTH AVE. • SALEM, OHIO, U. S. A.

Increase your footage

Use CLEVELAND Air Legs and Drills...the easiest way



THE FEED YOU NEED — FROM ZERO FEED TO FULL LINE

Eleven detent positions enable drill operator to set and maintain pressures in a range from zero to full-line feeding pressure — with an increase of 9 psi at each setting. That's why a CLEVELAND Air Leg and H10AL Drill combination gives top performance in any kind of rock.

Shown here is a CLEVELAND AL-92 Telescopic Air Leg with H10AL Drill. Because of space limitations, full length isn't shown.



CLEVELAND AL-92 Telescopic Air Leg with H10AL Drill
and exclusive 11-position feed control

SPECIFICATIONS

Standard, automatic controlled wet-type backhead.

Chuck Sizes.....	7/8" x 4 1/4"	— or other popular steel shank sizes
Weight, Drill.....	60 lbs.	
Air Hose.....	3/4"	
Water Hose.....	1/2"	
Full Feed Travel.....	4'	
Collapsed Feed.....	2' ea. piston	6'
Closed Length.....	48"	60"
Extended Length.....	96"	132"
Air Leg Weight.....	37 lbs.	42 lbs.

CLEVELAND AL-90 Single Extension Air Leg
for use with H10AL Drill and exclusive
11-position feed control

SPECIFICATIONS

Weight, Drill.....60 lbs.

Air Hose.....3/4"

Water Hose.....1/2"

Feed Travel.....36" — 48" — 60"

Closed Length.....56 1/4" — 69" — 81 1/4"

Extended Length.....92 3/4" — 117" — 141 1/4"

Air Leg Weight.....30 lbs.—34 lbs.—37 lbs.



CLEVELAND AL-91 Single-Extension Air Leg for use
with any 35-lb., 45-lb., or 55-lb. class rock drill.
Feed control built into air leg.

SPECIFICATIONS

Standard wet, or automatic controlled,
wet-type backhead available.

Air Hose.....	3/4"
Water Hose.....	1/2"
Feed Travel.....	36" — 48" — 60"
Closed Length.....	58" — 71" — 83"
Extended Length.....	94" — 119" — 143"
Air Leg Weight.....	35 lbs.—38 lbs.—41 lbs.

per man-shift!

to drill rock

**Choose
the drilling combination
that's best for you
from the industry's only
complete line of telescopic
or single-extension air legs.**

MINERS like to use a CLEVELAND Air Leg and H10AL Drill combination. It gives them real flexibility — they can use it as a drifter . . . as a stoper . . . or as a hand-held drill . . . set-ups are quick and easy.

It's an easy-handling combination, also. The air leg supports the drill and absorbs fatiguing recoil. You get flexible feeding pressure, too — from zero to full line. That's why miners drill more footage with CLEVELAND, yet are less tired at the end of their shift.

Exclusive CLEVELAND built-in feed control in the H10AL Drill eliminates a third hose and cumbersome "Y" connections. There's no feed-control bleed valve — the operator doesn't have to bleed off air continuously, to maintain suitable feeding pressure. He can change or advance the position of the leg easily and quickly.

The air leg holds the drill in line with the hole — thus reducing front-end drill wear and practically eliminating rotation strains.

These are ways a CLEVELAND Air Leg and H10AL Drill combination helps you get more drilling for less cost. Take advantage of them.

Write today for Bulletin RD-30 for complete information.



CLEVELAND AL-93 Telescopic Air Leg for use with
any 35-lb., 45-lb., or 55-lb. class rock drill.
Feed control built into air leg.

SPECIFICATIONS

Full Feed Travel	4'	6'
Collapsed Feed	2' sc. piston	3' sc. piston
Closed Length	50"	62"
Extended Length	98"	134"
Air Leg Weight	42 lbs.	47 lbs.



CLEVELAND ROCK DRILL DIVISION

Le Roi Company

A Subsidiary of Westinghouse Air Brake Co.

12500 BEREA ROAD • CLEVELAND 11, OHIO

RD-30

Plants: Milwaukee, Wisconsin • Cleveland — Greenwich — Dunkirk, Ohio • Coldwater, Michigan

COAL MINING

Vol. XXXI

August 1954

No. 8

Contents

Do You Know	6
Here and There in the Coal Industry	6
Talent to Operate Automatic Mining Machinery is in Sons of the Present Coal Mining Men	8-9
Eastern Ohio Coal Operations Hold First Golf Party	10
Advertiser's Index	28

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● A new product to enable dragline operators to repair drag chains with greater speed and ease has been designed by Electric Steel Foundry Company, Portland, Oregon. The new design consists of a change in the method of locking the link pin in place and is labeled "Spring-Lock" repair link. It is a tightly compressed coil spring that grips the pin, replacing the elliptical collar formerly used.

Dimensional tolerances of this spring are such that upon driving the hinge pin into the spring, the spring is expanded radially, well with the elastic limit of the spring material. When in service the spring material acts as a continual grip on the pin and in continued use has a tendency to grip harder rather than to loosen. But to its ease of installation, strength, and abrasion-resistant qualities, it has proven economical in operation. No special tools are needed, as links can be installed with a hammer.

The abrasion-resistant alloy cast link sections have almost two times the yield strength of manganese thus assuring less breakage and longer life.

For further details, write Electric Steel Foundry Company, 2141 N. W. 25th Avenue, Portland 10, Ore.

Manufacturers and Lubrication Engineers Since 1890



Lubrication Engineering follows an established, definite pattern of studying the Machine and recommending a lubricant to meet the situation.

Let our engineer discuss with you the NEW DEVELOPMENT IN HYDRAULIC lubrication.

STIFFLER INDUSTRIAL LUBRICANTS CO.

Etna, Penna. Phone St. 1-1571 and 1-2660

For Handling Highly Abrasive Pulps, Sand and Gravel, Ash in Water, or Corrosive Liquids

THERE IS NO PUMP IN THE WORLD THAT WILL LAST AS LONG AS A

LINATEX PUMP

508 Grant St. S. E. GANE & CO. Pittsburgh, Pa.

INCREASE YOUR PRODUCTION

with
DALY'S IMPROVED COMBINATION MINE CHECK
The Only Satisfactory Check on the Market Today

DALY TICKET CO., Collinsville, Ill.



Grooved Pipe Coupling



Plain End Pipe Coupling

Manufactured in All Pipe Sizes
Stock Carried in Pittsburgh

Harold C. Lusk Co.

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Locust 1-4191

Distributor for: Gustin Bacon Manufacturing Co.
Kansas City, Mo.



"We solved your future problems, **YESTERDAY!**"

As your Caterpillar Dealer, we're working with Caterpillar research, engineering and manufacturing on your problems of the future . . . we're *finding the answers* and are bringing about new developments and equipment that mean a successful future for you.

Look to Caterpillar for products of the highest quality . . . and to your Caterpillar Dealer for help on equipment problems—machine selection and application, service, training!

YOUR CATERPILLAR DEALERS

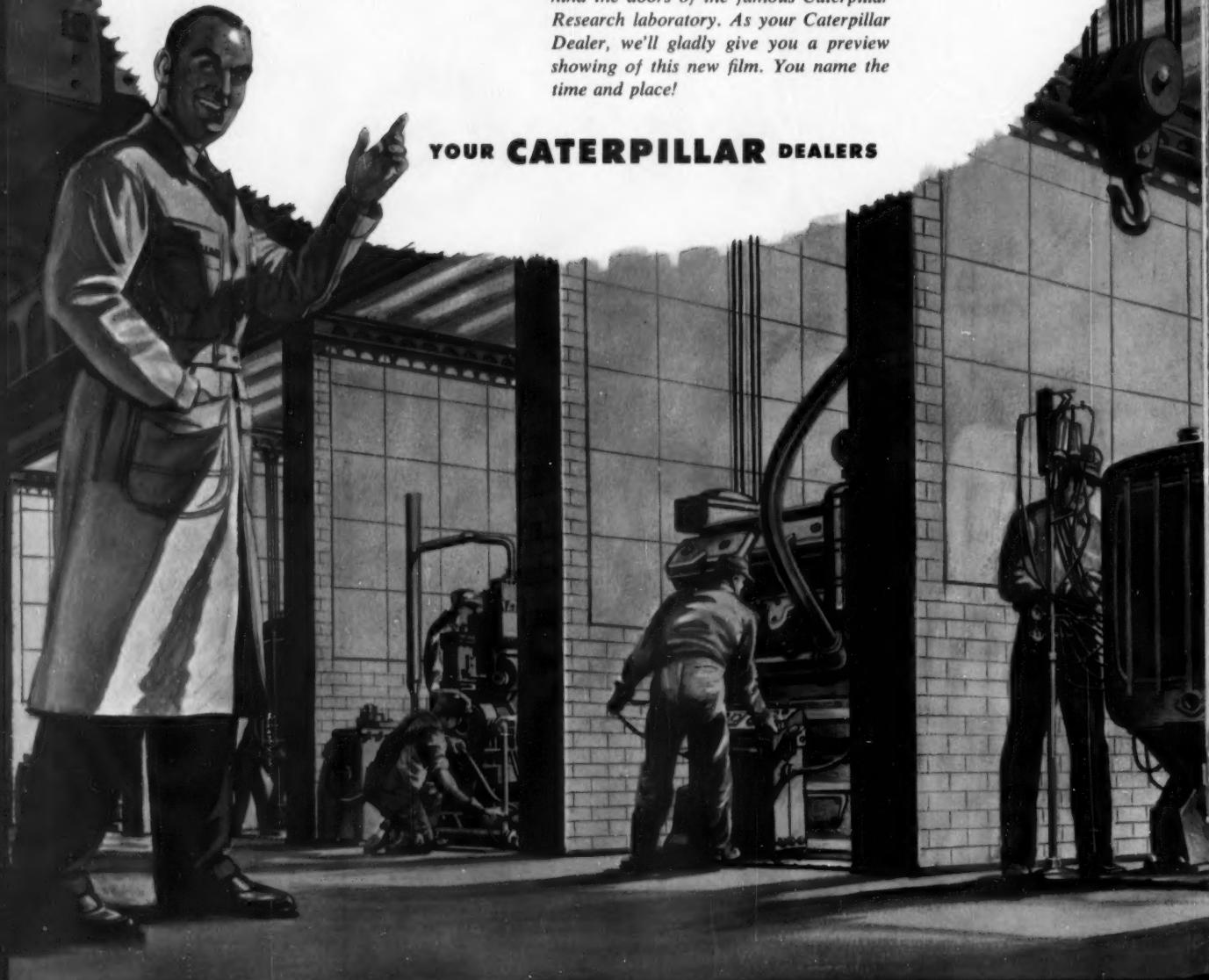
Your Profits START HERE!

Never content with producing the best, Caterpillar engineers are constantly searching for new materials, new designs, new manufacturing methods. To you, this never-ending research means dollars saved in fuel, increased production and those extra years of equipment life so well-known to every Caterpillar owner.

Here, in a portion of Caterpillar's research laboratory, Diesel Engines are constantly tested under thousands of simulated conditions. There is a story like this behind every Caterpillar product. A story that cannot be duplicated. As your Caterpillar Dealer we want to tell you this story and show you the resulting Caterpillar performance that has much to do with your profits in the years ahead.

THE STORY OF "RESEARCH"... *A new sound, color movie that tells a story you've never heard before. It takes you behind the doors of the famous Caterpillar Research laboratory. As your Caterpillar Dealer, we'll gladly give you a preview showing of this new film. You name the time and place!*

YOUR CATERPILLAR DEALERS



FUEL ECONOMY... The precision instrument shown on the front cover reproduces, in detail, fuel injection patterns. This instrument allows a complete study of fuels and fuel injection systems. Detailed research of this kind results in complete fuel use in CAT® Diesel Engines. You benefit from more work done with fewer gallons of low cost fuel.



HIGH PRODUCTION... To match load-carrying capacity to prime power, engines and gears receive a thorough study. Loads are applied in a thousand different ways while reactions are charted to show how much of a load an engine, working through gears, can carry under every condition. You profit from units with matched power and capacity like the DW21-No. 21 Scraper.



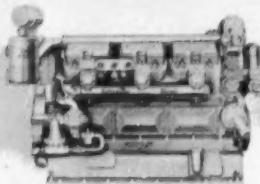
DEPENDABLE PERFORMANCE... Elements that cause wear and possible breakdown are reproduced in the laboratory and magnified thousands of times. Methods of eliminating the effects of these elements and reducing downtime are tried and tested thoroughly. There's no guesswork when downtime eliminators, like the oil clutch, are introduced. Users report as much as 4 times more service from the clutch.



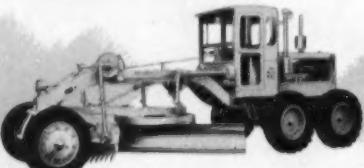
LONG LIFE... One of the many reasons why 99% of all Cat Motor Graders ever built are still working is the material testing processes followed by Caterpillar. Steels used in the construction of Cat machines are carefully analyzed and tested. No material that shows a flaw or weakness is ever used. Your benefit is more years on the job and a better trade-in price.



LET US SHOW YOU WHY
CATERPILLAR
PERFORMANCE
Benefits You

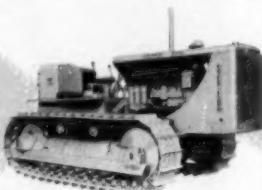


ENGINES... twelve honestly-rated diesels ranging to 500 maximum HP are offered. Each engine is available as an electric set with matching generator. A complete line of attachments can fit these dependable power units for any job.



MOTOR GRADERS... three long-lived sizes to match any work need. The No. 12 has 100 dependable HP . . . the 112 has 75 . . . the No. 212 has 50. Speed and weight are matched to the power for greater production at lower cost.

Now . . . look at Caterpillar's line of products. And remember each one brings you the benefit of this constant research. Then add to this, the advantage of a single Dealer source . . . products designed and built by *one* manufacturer . . . and the backing we offer in parts and service facilities. We want to show you how this great team will pay off in profits for you!



TRACTORS... five track-type models to 150 drawbar HP; three four-wheel rubber-tired models to 225 HP; one two-wheeled 225 HP unit—all economically-powered by CAT® Diesels with that deep-lugging ability.



EARTHMoving EQUIPMENT... nine scrapers with capacities to 31 heaped cu. yd. Straight and angling bulldozers for each tractor with cable or hydraulic controls. Two hydraulically-controlled shovels of 1 1/4 and 2 cu. yd. capacity. Two rippers. Two wagons.

YOUR **CATERPILLAR** DEALER BACKS **QUALITY PRODUCTS WITH QUALITY SERVICE**



BECKWITH MACHINERY COMPANY

6550 HAMILTON AVENUE, PITTSBURGH, PA. • OLD TOWN ROAD, CLEARFIELD, PA. • EAST BROADWAY, FARRELL, PA.
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OHIO MACHINERY CO.

6606 SCHAAF ROAD, CLEVELAND, OHIO • 930 KINNEAR ROAD, COLUMBUS, OHIO • 2807 REYNOLDS ROAD, TOLEDO, OHIO
 U. S. ROUTE 250, CADIZ, OHIO • 4000 LAKE PARK ROAD, YOUNGSTOWN, OHIO

WALKER MACHINERY CO.

1545 HANSFORD STREET, CHARLESTON, W. VA. • 4010 EMERSON AVE., ROUTE #2 PARKERSBURG, W. VA.

CM-5

YOUR **CATERPILLAR** DEALERS



4 mighty Manitowocs produce for Tri-County Fuel Co., Boyer, Penna.

IT'S NO WONDER there are more 4500's stripping in Pennsylvania, West Virginia, Ohio—than any other make machine—fleet owners and operators know that Manitowocs produce more yardage—more profit per shift—day in and day out!

Here's a 4500 "delivering the goods" for Tri-County Fuel Company, Boxer, Pa.—one of Four Manitowocs stripping and loading, either as a shovel or dragline.

See Manitowoc—watch it operate—notice how its fast operating cycles, smooth, positive-action torque converter, special design long reaching booms, hi-lift shovels

and faster traveling crawler type mounting can mean greater production for you on your mining operation.

See Manitowoc before you buy your next shovel or dragline—see for yourself why the big swing is to Mighty Manitowoc.



ANDERSON EQUIPMENT CO., P. O. Box 427 Bridgeville, Pa.

BASSLER EQUIPMENT CO., 1300 Wyoming Ave., Forty Fort, Pa.

R. H. SMITH CO., P. O. Box 508, Beckley, W. Va.

Do You Know?

● Don't worry about exercise and energetic work damaging your heart, if it is normal. The Journal of the American Medical Association in its current (July 17) issue declares editorially:

1. Exercise even when strenuous will not damage a normal heart.

2. Infections are more important as a cause of cardiac disease than exercise.

3. Athletes with a heavy body build have a lower life expectancy than those with a lighter build, regardless of the type or extent of their participation in sports.

4. The term "athletic heart" should be dropped from medical writing because it is used with a wide variety of meanings to describe a condition that probably does not exist.

5. Because strenuous exercise may injure a heart that is already weakened, there should be closer medical supervision of young athletes.

Exertion is often blamed when death occurs during or shortly after exercise, the editorial observes. Investigation of such cases frequently reveals that the physical effort involved was slight or that an unsuspected organic lesion of long duration was the cause of death.

● Even if you're an eye witness, you can get your facts badly twisted.

This was demonstrated at the University of California at Los Angeles' School of Law and proves again that the statement "I saw it with my own eyes" does not mean a thing.

The incident took place when mystery novelist and lawyer, Erle Stanley Gardner, was addressing a class in legal evidence.

As Mr. Gardner began his hour-long lecture, a woman burst into the room and rushed at him shouting "You got my brother hung!" She then unsuccessfully attacked him with a pointed can opener before being escorted from the room by the class' instructor, Marshall W. Houts.

Mr. Houts, who planned the stunt to dramatize the great variance of eye-witness accounts to the same event, later asked the 34 students to describe in detail the woman's clothing and appearance.

Asked what the woman's complexion was like, the students replied in their questionnaire: three dark, two ruddy, one medium, five fair, seven pale, three heavily powdered and made up, 13 don't know. Her actual complexion was fair with freckles and no makeup.

Although the woman wore an old-fashioned, high-laced shoe with a pointed toe and high heel on her right foot and a tan shoe with a low heel on the other (this also gave her a noticeable limp), 25 of the student observers made no mention of either the different shoe styles or the limp.

Here and There in the Coal Industry

● The Kemmerer Coal Co., Frontier, Wyo., has announced the election of John L. Kemmerer, Jr., as chairman of the board; G. E. Sorenson, president; and L. M. Pratt, Jr., vice president—sales. Mr. Kemmer is NCA treasurer and chairman of the Finance Committee.

● P. E. Ebert has been elected a director and vice president in charge of sales of the Sunday Creek Coal Co., succeeding Walter T. Fassig, who is retiring but who will continue to serve as an advisor. Joe W. Walker has been appointed general sales manager to succeed Mr. Ebert. The new director and vice president has been with Sunday Creek as sales manager for 26 years, and was previously associated with the New York Central Railroad for 18 years.

● The Philadelphia and Reading Coal and Iron Company observed today (Saturday, August 14th 1954) the 50th anniversary of the founding of its safety program—oldest continuous program in American industry—with an intra-company contest of its first aid teams at Lakewood Park near here.

The teams, representing operating units, competed for the title of Golden Anniversary First Aid Champions before upwards of 1000, including employees and officers of the Company and their guests.

J. J. Forbes, Director of the U. S. Bureau of Mines, presented Certificates of Honor of the Joseph A. Holmes Safety Association to three P & R operations for outstanding safety achievements.

Gordon E. Smith, Deputy Secretary of Mines, extended the greetings of the Penna. Department of Mines to the meeting.

Edward G. Fox, P & R president, made the prize awards.

● The Board of Directors of Bituminous Coal Research, Inc., has announced the appointment of James R. Garvey to the position of assistant director of research, in charge of the Columbus branch office and laboratory. He will also serve as general manager of BCR Products, Inc. Mr. Garvey succeeds Elmer R. Kaiser who has accepted the position of director of research for the American Society of Heating and Ventilating Engineers.

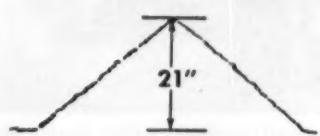
Mr. Garvey came to BCR in 1946 as development engineer on design and development of residential heating equipment. In 1948 he joined Mr. Kaiser in establishing a BCR Columbus branch and assisted him in the operation and planning of the BCR-Columbus activities. He has been responsible for building operation and maintenance and supervision of laboratory research projects.

A graduate of Ohio State University, Mr. Garvey was employed by Hanna Coal Company and Pittsburgh Coal Company before coming to BCR. With those companies he worked in their underground mining, preparation, and research operations. He was recently appointed technical secretary of the Engineering Advisory Board of Automatic Solid Fuels Equipment, Inc., a coal-industry sponsored organization formed to promote the manufacture and sales of newly-developed coal-burning equipment.

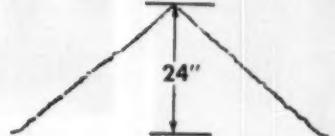
Mr. Kaiser will assume his new duties at the ASHVE research laboratories, 7218 Euclid Ave, Cleveland, Ohio, about September 1. He has been engaged in coal research since he joined the staff of Battelle Memorial Institute in 1935. While at Battelle, he served as assistant to the president of BCR and helped organize support for the coal industry's cooperative research program. Mr. Kaiser has been active in technical societies and has served on committees of national scope.

QUESTION*

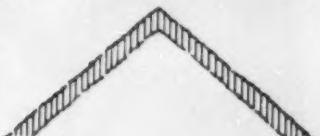
**How much more material is there in a
Three-Inch-Higher Windrow . . . 9% . . . 18% . . . 31% . . . ?**



Cross section of an average, 21-inch high windrow . . . the area (width x height ÷ 2) is 614 sq in.



Now increase the height of the windrow by 3 in. The cross-section area now equals 804 sq in.



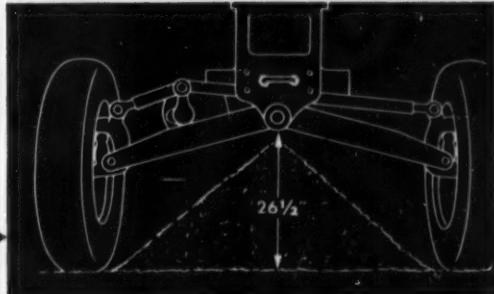
The difference: 190 sq in, over 30 percent more area, meaning over 30 percent more yardage.

***Only a Combination of Advanced Design Features
Lets a Motor Grader Handle Big Loads Fast**

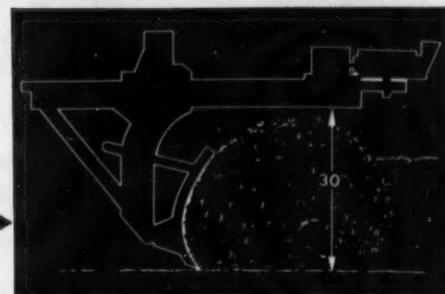
To take full advantage of even a *three-inch* difference in windrow height (as explained above) a heavy-duty motor grader needs new design and performance characteristics from front to rear and top to bottom.

Let's analyze the Allis-Chalmers 104-brake-horsepower AD-40 to see how it measures up to these stiff requirements.

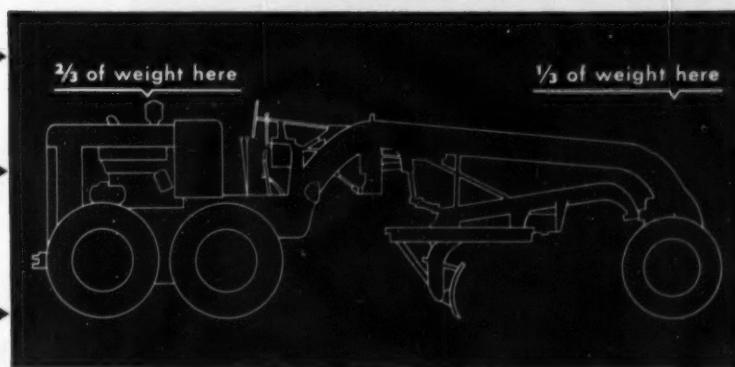
1 **A HIGH-ARCH FRONT AXLE** to straddle big windrows . . . take advantage of that three-inch difference and let big loads pass through to the blade.



2 **A ROLLING-ACTION MOLD-BOARD** . . . to insure a "live" load that rolls freely off the blade . . . moves the load faster and takes full advantage of engine power.



3 **AMPLE THROAT CLEAR-ANCE** . . . to handle 30 percent bigger loads without disturbing free, rolling action . . . and without jamming dirt, oil-mix or any other material against the circle.



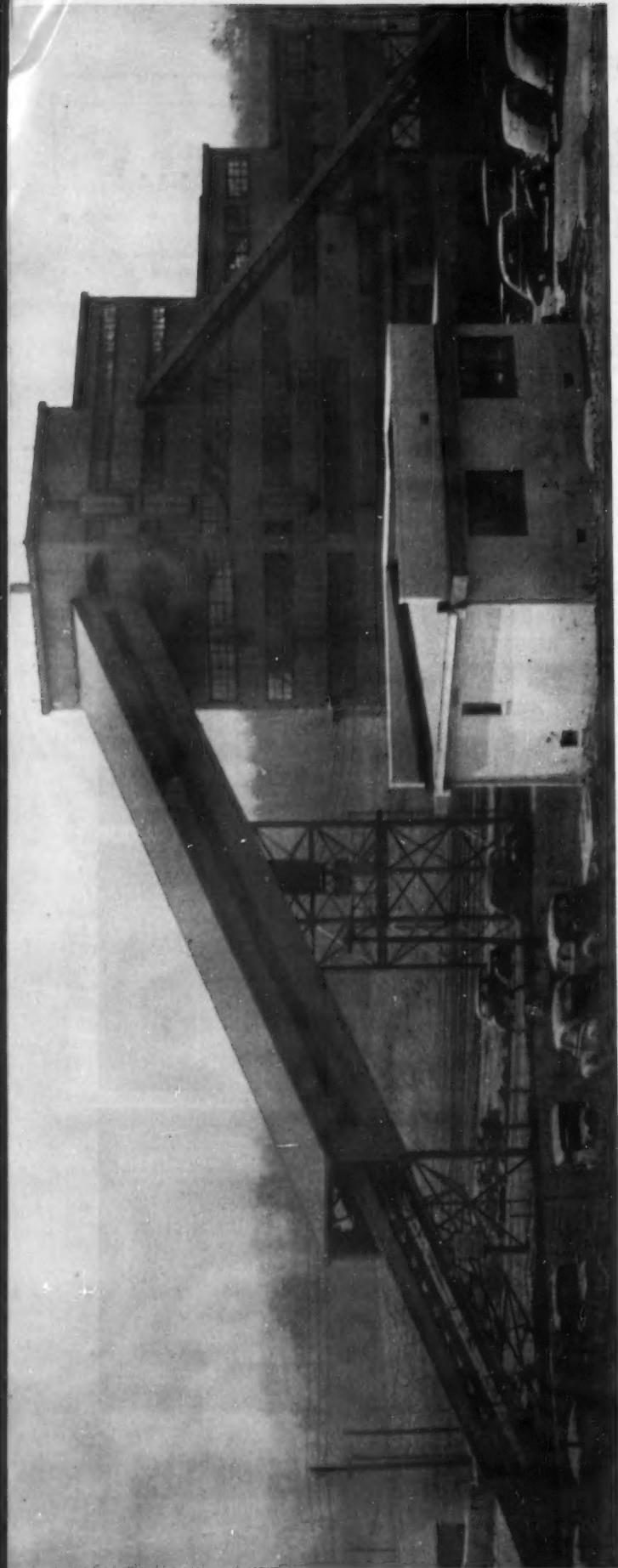
4 **FULL BLADE FREEDOM** . . . the exclusive tubular frame and a long tubular drawbar insure full blading effectiveness on the road, in the ditch or on the slope.

5 **BALANCED POWER, WEIGHT AND TRACTION** . . . a heavy-duty engine and *two-thirds* of the weight concentrated on tandem-drive rear wheels provide the best in traction, positive blade pressure and steer-ability.

6 **EASY CONTROL AND VISIBILITY** — A big platform with plenty of leg room, adjustable seat and steering wheel, power steering, assures working ease. Single member frame, low control board and tapered platform corners provide "pilot-house" visibility.

Your Allis-Chalmers dealer will be glad to show you how the AD-40 gives you the *differences* that mean more work done . . . by a demonstration under on-the-job conditions.

ALLIS-CHALMERS
TRACTOR DIVISION • MILWAUKEE 1, U. S. A.



Modern Coal Preparation in West Virginia



Photo Courtesy Roberts & Schaefer Co.

A Present Day Modern Coal Mining Man's Home

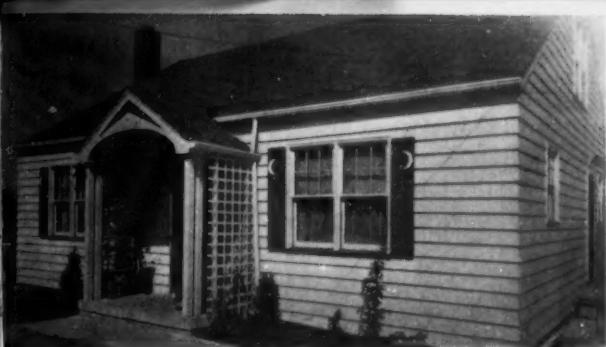
TALENT TO OPERATE MACHINERY IS PRESENT COAL

Developed from ameba in the act of creation, an event within the order of nature, man has progressed far beyond the time of the beginning of life from organic evolution in oceanic broth.

Beginning with competition in water between seaweed and fish, long before any creature set foot on this earth more than a hundred million years ago, man now finds the water and earth have been filled with living things. Other than man those living things have changed very little in that time.

In his brief history on this earth, man has bettered himself and the world through learning. It is because of his learning and his thinking that man has developed from animal into man. Somewhere back in the hundred million years when his brain was just beginning to form, man started to think, cell by cell, reflex by reflex, to form his present wonderful brain and two other miraculous powers, speech and ingenious adaptability of the hands.

In its present stage the human brain is like the heart, pulsating ceaselessly day and night from birth to death. In the human brain are recorded billions of habits, instincts, desires, abilities, fears, hopes and memories. The human brain is capable of imaginary delights, of remembering scents, of growing things, remembering poems, tunes, jokes, prayer, complex stresses in structures and of new inventions never before used. Yet man's mind is capable of far more work than it has ever done. The average present man leaves about two-thirds of his brain dormant. This is partly because of the belief



Another Mining Man's Modern Home

AUTOMATIC MINING IN SONS OF THE MINING MEN

of some of us that certain bodies of knowledge should be destroyed or suppressed because they might damage some religious, social or political group.

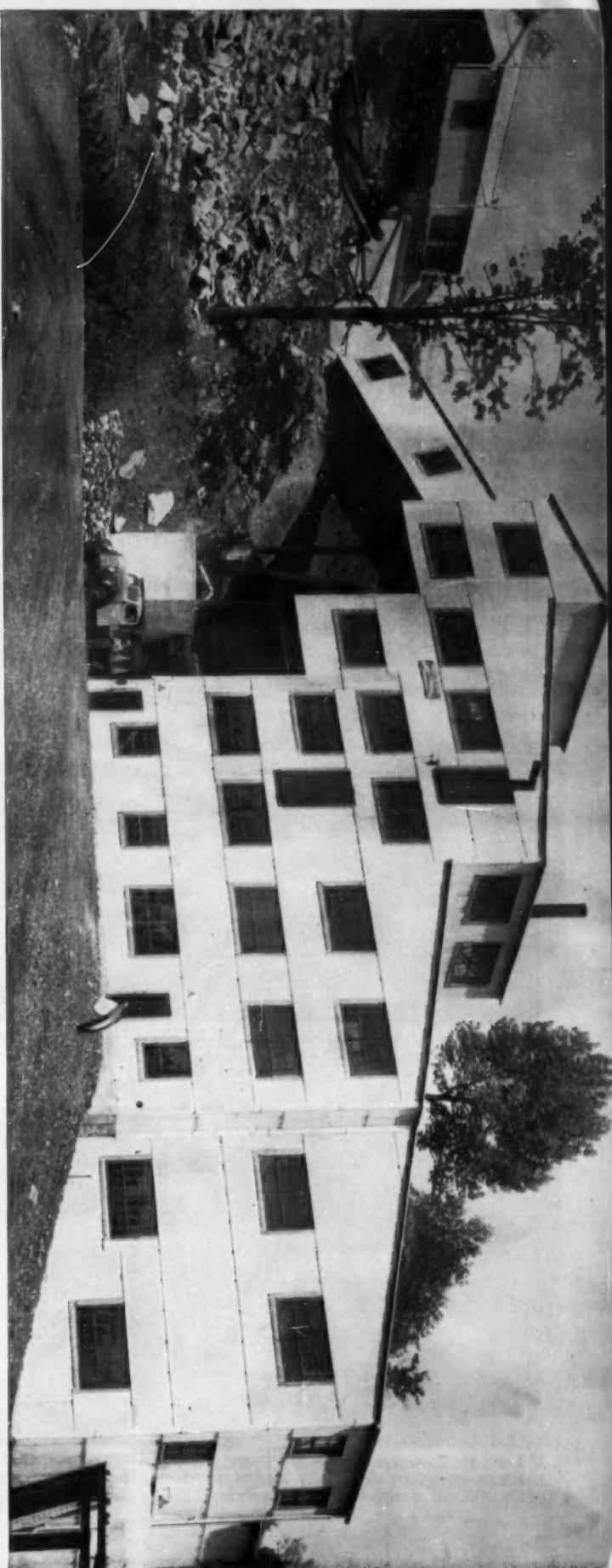
Man's slow but positive advance from animalism to humanity reflects a long period of learning. Earliest tools were mere lumps of stone that roughly fit the hand. Centuries later, better tools were selected, rounded, chipped smooth and sharpened to make them more useful. After the use of stone came the control of fire and the transformation of lumps of earth into pottery and durable metals. This was one of the first real beginnings of the growth of the human mind, one beginning which moved us from primitive animalism through primitive savagery to civilization.

A great reward for learning is the excitability derived from exploring a new subject. A person having such experience changes suddenly. His own original ideas are discarded and he outdistances his friends intellectually. The energy of his mind combines into new creative thinking.

The truth about great minds—the truth that inspired this writing—is that many great works of the mind were by men in ordinary or unfavorable circumstances. Poverty is not an unsurmountable barrier to learning. This brings us face to face with the fact that ability and know-how to operate the electronic devices that will control our coal mining machinery of the future—the thing that concerns us most at the moment—is in the sons of men working in our mines now. It is up to us to find and to develop that badly needed talent.

Another Coal Preparation Plant, Built to Produce Coal for Today's Needs.

Photo Courtesy Roberts & Schaefer Co.



Eastern Ohio Coal Operators Hold First Golf Party



Belmont Hill Country Club from the West



The Board of Registration, Left: K. D. Pfoor, Mine Safety Appliances Co.; James G. Ault, Hanna Coal Co.; H. A. Kackly, DuPont Co.; R. S. Hardesty, Hanna Coal Co.

The Eastern Ohio Coal Operators Association held its first golf party at the Belmont Hill Country Club, on Route 40 West of St. Clairsville, Ohio.

Belmont Hills is an 18 hole golf course with a 72 par for the course. The terrain is hilly with very little level ground which makes it a sporting course. Even some of the greens are sloping.

The attendance at the first party was about 150 members and guests from the Tri-State area of Ohio, Pennsylvania and West Virginia. By far the greater majority of attendants played golf but their game was interrupted by a severe thunder storm about midafternoon. The storm did not seem to bother the



Left: H. T. Sutter, Gen. Supt. and C. R. Nailer, President, Christopher Coal Co.; James Hyslop, President, Hanna Coal Co.; R. G. Seaburn, Asst. Secretary-Treas., Christopher Coal Co.



Larry Gent and J. W. Milam, Joy Mfg. Co.; V. A. Curry, Supt., Youngstown Mines Corp., Dehue, W. Va.; Alex Grant, Mgr., The Buckeye Coal Co., Nemacolin, Pa.



W. B. Rochlus and V. J. Orler, General Electric Co.; Martin Kass, Jr., General Welding Co.; S. J. Litten, Sun Oil Co.

Left: R. L. Littleton, Valley Oil Co.; E. J. Deenihan, Goodyear Tire & Rubber Co.; E. E. Gaston, Elec. Eng., Hanna Coal Co.; H. D. Kingsley, General Electric Co.; V. H. Forsythe, Powhatan Minings Co.

devout golfers, however, for they were back on the course as soon as the storm passed.

The party received wholehearted support of the Ohio coal operators, both deep and strip, who contributed many very fine golf and door prizes. About 35 prizes were given, 16 of which were high class door prizes.

Dinner was served about 7 o'clock. The Buffet Smorgasbord, self service type, was used this first time with meat, bread stuffing, potatoes, shrimp, cheeses of many sorts, salads, fruits, milk, coffee at the table and pie on the menu.

All attendants were very pleased with this party and a suggestion was made to have more such parties. The committee will consider having another party this year and if it is decided to have one, the membership will be advised. (Continued on Page 16)



Left: Ford Sampson, Chairman, Ohio Coal Operators Acco.; Ralph Hatch, Asst. to Pres., Hanna Coal Co.; R. K. Pfoor, Mine Safety Appliances Co.; Ada Kanpsie, drawing the numbers.



Left: S. W. Norris, Safety Dir., Y. & O. Coal Co.; Henry C. Roberts, Ohio Mines Insp.; Andrew Milarcik, Supt., Columbia Southern Chemical Corp.; Larry Cockrell, Caterpillar Co.



R. M. Wilson, Mfg. Rep.; Max Edwards, Supt., and R. H. Jackson, Purchasing Agen, Powhatan Mining Co.; Chuck Alleman and R. L. Bogardus, Westinghouse Electric Corp.; Bus Ontal, Gen. Mgr., Saturn Fdry.



Model 82 Lorain Shovel Stripping in one of the Paul Kerlin Pits.

LARGE STRIPPING UNITS IN SOMERSET COUNTY, PENNSYLVANIA

In the vicinity of Boswell, Somerset County, Pennsylvania, the Paul Kerlin Construction Co., and Feterolf Construction Co. are using Manitowac Model 4500 draglines to strip the Miller "E" seam of coal which averages 30 inches thick.

Cover on the coal consists of top soil, a layer of sandrock and yellow shale down to the coal. The Paul Kerlin Construction Co. has several pits in the area and is using a Model 4500 Manitowac dragline driven by a Caterpillar 386 engine in his main pit. This dragline has a 120 ft. boom and 6 yard Page bucket.

Right: Manitowac Model 4500 Dragline stripping at the Paul Kerlin operation.



Lorain Model 75-B loading out coal at a Paul Kerlin Pit.





Model 82 Lorain which strips and loads out coal at another pit of Paul Kerlin.

An Allis-Chalmers H D 19 tractor works along with this dragline. In this pit the coal is loaded out with a Lorain 75-B shovel.

At another pit the coal is stripped and loaded out with a Lorain Model 820 shovel.

Having worked in the area for some time, there is considerable backfilling for the State as well as for farmers. State work is done according to State regulation while farm land is backfilled so that seed can be planted.

The Feterolf Construction Company is also using a Model 4500 Manitowac dragline with 120 foot boom and $5\frac{1}{2}$ cubic yard heavy duty Esco bucket. This dragline is also driven by a Caterpillar 386 engine.

The Miller "E" seam of coal is also being stripped here and averages about 30 inches thick. Cover is top soil, quite a bit of sand-rock that breaks in slabs, then yellow shale down to the coal. This dragline is assisted by an International T D 24 tractor.

The Feterolf Construction Company has the most modern coal preparation plant in this area to which all output is trucked, cleaned and sized to meet specific markets.



D-7 Caterpillar backfilling for Paul Kerlin.



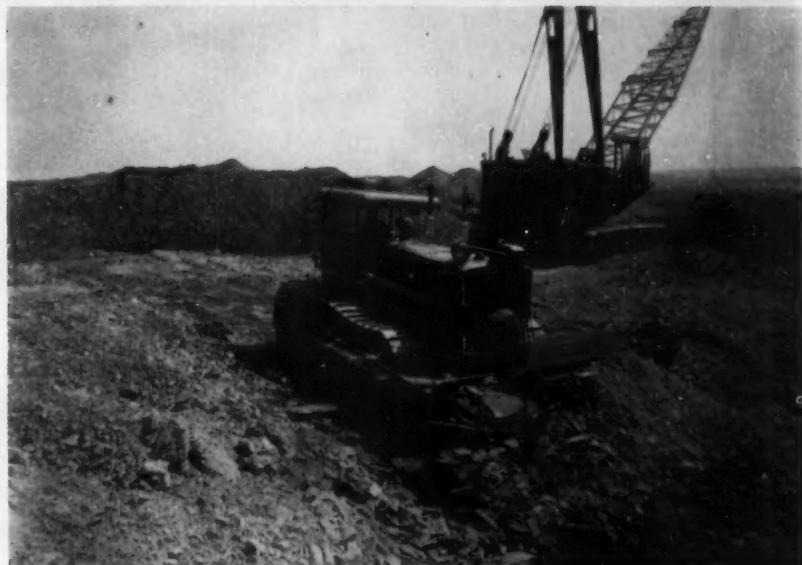
Looking down into the pit where the 4500 Manitowac Dragline is working.

Below: This is one of the many finished backfilling jobs by Paul Kerlin. This farm has been levelled and is now growing buckwheat.





Above: Model 4599 Manitowac dragline stripping for Federolf Constr. Co.



Right: International Model TD 24 Tractor working with the Manitowac Model 2400 Dragline at the Federolf Construction Co. near Boswell.



The Modern Preparation Plant of the Federolf Construction Co.



Left: Emory Kidder, Saginaw Dock & Terminal Co.; Mike Duda, Maint. Supt., Powhatan Mining Co.; Harry Ellanovitz, Dillonvale, Ohio.; J. Aroille Lee, Purchasing Agent, Powhatan Mining Co.; V. C. Beck, Ind. Eng., Ohio Power Co.



Left: Robert Cooper, Saginaw Dock and Terminal Co.; Joel Haverstick, Allis-Chalmer Mfg. Co.; Armour Pugh, Hank Van Horn, both of the Saginaw Dock & Terminal Co.



Left: P. C. Beutel, Gen. Mgr., Columbia Southern Chemical Co.; E. V. Johnston, Chief Acct., Hanna Coal Co.; Andrew Hyslop, C. E., Hanna Coal Co.; Burr Owens, Ohio Bell Telephone Co.; Bert Roberson, Ohio Machinery Co.; E. W. Lewis, Ohio Coal Assn.

Below, left: E. N. Burkett, partner, Burkett Coal Co.; R. K. Sutton, R. K. Sutton Co.; Micheal Yonko, Gen. Mgr., Powhatan Mining Co.; Clark Walker, Pellish Co.; L. H. Richards, Ohio Brass Co.

Below, right: R. L. Killebrew, Westinghouse Electric Corp.; D. R. Dunham, and Chas. Bell, Jr., both of Columbia Southern Chemical Corp.; R. T. Smith, Kennametal.



Left: Tom Horn, President, Kanawha Steel & Equipment Co.; Art Whitaker, V.-President, U. S. Coal Co.; Jack Whelan, Gen. Mgr., Kanawha Steel & Equipment Co.; Wm. Whitaker, Office Mgr., U. S. Coal Co.; Chuck K. Secret, Supt. No. 12 Mine, Hanna Coal Co.



Left: Bill Watkins, Ohio Machinery Co.; Taiste Laine, Supt., Hanna Limestone Co.; Joe Baily, Supt., U. S. Coal Co.; Roger Newell, American Cyanimid Co.

- Frederick W. Smith has been appointed superintendent of production for Penn Machine Company of Johnstown.



Prior to his new position, Mr. Smith was with the Transportation and Generator Division of Westinghouse Electric Corporation, East Pittsburgh, for seventeen years, and was recently supervisor of steel fabricating.

Penn Machine Company specializes in the production of gears, sprockets, shafts, bronze castings and specially designed metal parts for industry.

- Joy Manufacturing Company, Pittsburgh, Pa., announces the election of John Lawrence as executive vice president.



In announcing the election, J. D. A. Morrow, president, said that Mr. Lawrence, in addition to assuming the responsibilities normally associated with his new post, will give special attention to Joy efforts toward further diversification of the company's product lines.

Mr. Lawrence joined the company in July, 1951, as vice president of manufacturing and in April, 1953, was named vice president of manufacturing and engineering. His prior experience includes seven years with SKF Industries Inc., where he served as vice president, and 10 years with Jones and Lamson Machine Co., where he was factory manager.

A native of Rutland, Vermont, Mr. Lawrence is a graduate of Massachusetts Institute of Technology, with a degree in aeronautics. He

is a member of the Western Pennsylvania Engineering Society, the Duquesne Club of Pittsburgh, the Franklin Club of Franklin, Pa., and the Seven Springs Club of Champion, Pa. His home is at 46 Ordale Boulevard, Mt. Lebanon, Pittsburgh.

- A new 24-page brochure has been published by Penn Machine Company, Johnstown, Pa., which specializes in gears, sprockets, shafts, bronze castings and similar parts. The brochure includes details on the company's planning procedures, engineering, facilities, testing and inspection processes, as well as a section devoted to a great variety of parts which Penn Machine is equipped to produce.

Copies of the new brochure may be obtained from Penn Machine Company, Johnstown, Pa.

- The introduction of a new, unique loading machine has been announced by The Long Company of Oak Hill, West Virginia, manufacturers of mining equipment and conveying machinery.

Named the LONG Model 88 PIGLOADER, this new machine is the first loader that has been designed specifically for use with the Piggyback Conveyor — an exclusive LONG development that assures uninterrupted haulage from the working face. The PIGLOADER is caterpillar-mounted and very heavily built to withstand the hard usage imposed by high-tonnage Piggyback Mining.

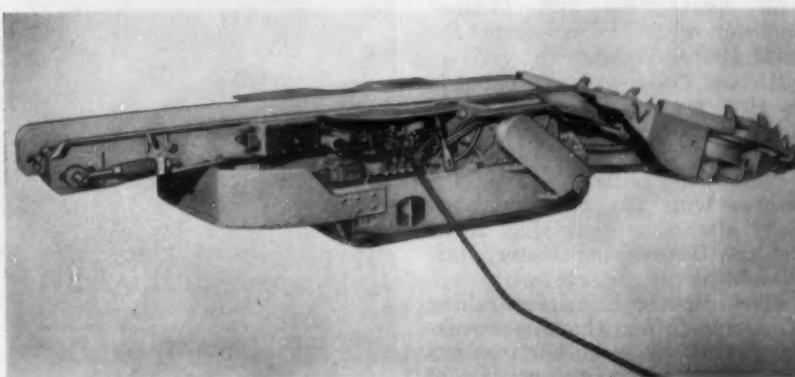
Suitable for use with either the PT12 or PT-15 Piggyback, the Model 88 is a low-height, heavy-duty machine capable of continuous high-capacity production. Its long wheel base with wide tracks gives unprecedented stability and

positive operation even in soft coal. All machine operations are driven by a single 35 HP electric motor (U.S.B.M. approved) and all drives are mechanical.

Of special note is the extreme maneuverability and simplified operation of the PIGLOADER. A single bank of fingertip control valves is provided for the hydraulic control of all functions—tramming, raising and lowering of the head and tail, as well as the operation of the conveyor chain and gathering arms. Thus, operator fatigue is kept to a minimum with a resultant increase in operator efficiency. Furthermore, in this design, the short length (16'), low overall height (26") and narrow width (5'8") are combined to facilitate operation in close quarters and low coal. Also, the PIGLOADER makes possible much better roof control and permits better timbering in break through areas.

According to J. B. Long, president of The Long Company, the development of the Model 88 PIGLOADER means that the Piggyback system of continuous mining can now be expected to provide even greater efficiency and operating economy with relatively little capital investment.

Complete specifications for the PIGLOADER are: Rated Capacity: Average—3 Tons per Minute, Maximum—5 Tons per Minute; Tramming Speed: 120 Feet per Minute; Weight: 14,000 lbs.; Electrical Enclosures: U.S.B.M. Permissible Type. Motor Horsepower: A single 35 HP electric motor drives all machine operations. Machine Control: All functions are controlled hydraulically; Electrical Control: Non-reversing magnetic with start-stop pushbutton; Conveyor Chain: Heavy duty single strand design.



Long Model 8 Pigloader



Mr. M. D. Cooper, Secretary of the Oldtimers' Club, Pittsburgh, Pennsylvania, presents the Oldtimer's award to the outstanding senior student in Mining Engineering at Virginia Polytechnic Institute, Blacksburg, Virginia, Mr. Ellis Paxton Bucklen. Dean Emeritus E. B. Norris assists in the ceremony.

BOOK REVIEW

BLACK DEBTOR

by

Michael Peterson

Red Blitz, reared in a coal-mining country, a region of hardship and privation, dreams of a life far grander than his home town can offer. Dolores, his girl, has ambitions that match his own.

Black Debtor is the story of Dolores' fulfillment of her Cinderella destiny, while Red is doomed to continue on the same plane to which he had been born.

It's a novel that deals realistically with the essential foundations of human hopes and human happiness.

Red, crippled while still a boy, nevertheless retains custody of little Agata, his and Dolores' daughter, while Dolores roams the world, rich and respected.

Michael Peterson has created in his first novel a noteworthy cast of characters, convincingly lifelike in their strengths and weaknesses.

With all her selfishness and folly, Dolores wins the reader's sympathy almost as completely as do Red and Dolores' benefactor, Harold Randale.

Black Debtor is an enthralling tale, gripping and thought-provoking, written by an author who has pondered deeply on the verities of life.

The author of **Black Debtor** was born in Poland and received his early schooling in that country and Norway.

In 1912, at the age of sixteen, he came to this country, to Carnegie, Pennsylvania, where he became a steelworker.

He still makes his home in Carnegie.

Michael Peterson is a past president of the Polish White Eagles.

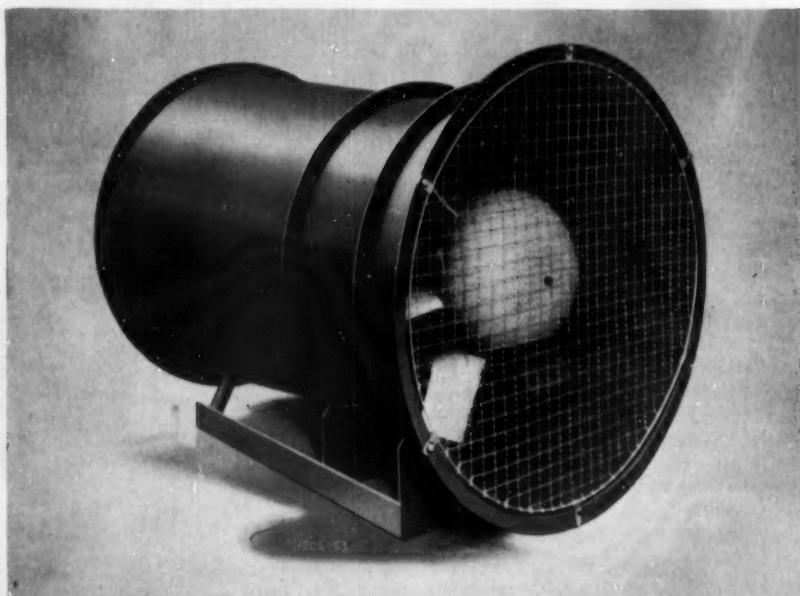
Black Debtor is his first novel. Vantage Press, Inc., 120 West 31 Street, New York 1.

• Frank M. Capp has been appointed Manager of Sales Engineering, Core Drill Division, Joy Manufacturing Company, according to a recent announcement by the company. Mr. Capp succeeds the late J. B. Martin in this position, having served as assistant manager in the division since 1946.



Mr. Capp joined Joy Manufacturing Company in 1941 and before becoming associated with the Core Drill Division, served in the purchasing department. He is succeeded as Assistant Manager of Sales Engineering by James M. Barrett.

• Track cleanup in tipple and hauling areas has been put on a steady production basis by a new, off-track, self-propelled loader produced by Athey Products Corporation. Labeled the 125 HiLoader Track Cleaner, the versatile rig can load as many as 10 cubic yards of loose debris from track areas



Series F Jeffrey Aerodyne Fan for coal mine ventilation up to 5" water gauge pressure.

each minute.

A 101 HP engine provides plenty of power for all operations of the 125 HiLoader. The cutting edge extends 98 inches across the front of the loader and has tunnels to protect the track and guide the



machine. The tunnels can be removed for other work assignments. Auger flights turn materials into a paddle-blade feeder, that is spring-supported with pivots to the rear to allow it to follow the contour of the material. The debris is not bulldozed ahead, but as size of piles increase the feeder opening increases. The paddles carry the material onto a fast-moving, conveyor belt. A 15-foot 7-inch high discharge conveyor casts the material into trucks as they move along beside the tracks or into



Philadelphia—Schuylkill County's Voiture, manned by four delegates from Robert B. Woodbury Post No. 67 of Pottsville, Pa., won first prize in the 40 and 8 Boxcar and Locomotive Division at the 36th Annual Convention of the American Legion, Department of Pennsylvania, here this week (week of July 19th).

The four-man crew was headed by Robert A. Fasold (second from right), a Philadelphia & Reading Coal & Iron Company employee at Pottsville. Other members included George Barnhardt (left), Pottsville; Clarence Neal (second from left), Tremont; and Delbert Kriner (right), Pottsville.

rail cars. The discharge conveyor swivels 55° to either side of center. The Track Cleaner loads at speeds up to 2.0 MPH and can move off-track between job assignments at rates up to 20 MPH. Big tires permit work across tracks without damage to roadbed or machine. The wide gather enables the Track Cleaner to clean both between the rails and to the tie ends.

The one man operated Athey

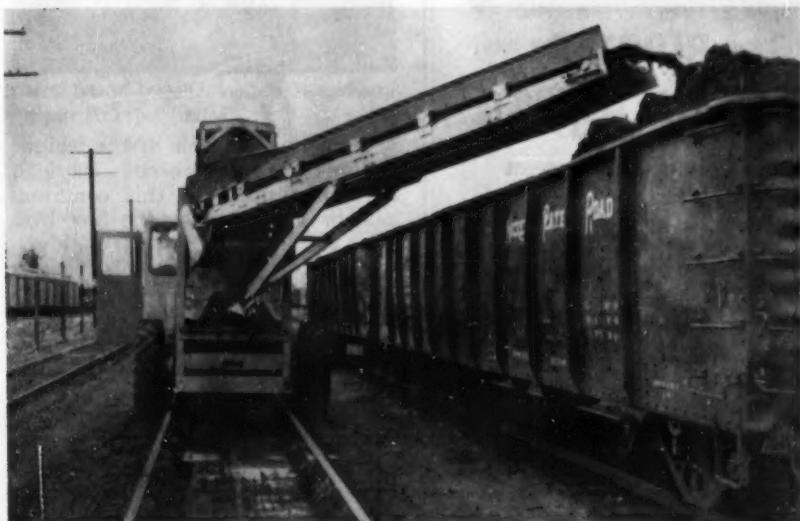
Track Cleaner has replaced 8 to 10-man crews and produces a cleaner job. The loader is not tied to the rails and can take on many other jobs. Coal, stone and other materials can be loaded from stockpile. Snow is cleared at the rate of 25 cubic yards each minute.

The Athey HiLoader Track Cleaner presents a new answer to the problem of littered mine tracks — cleaning them quicker and at lower cost.

● Walter J. Pilarski has assumed additional responsibilities as Manager of the Contract Core Drilling



Division, Joy Manufacturing Company, following the recent death of J. B. Martin. Mr. Pilarski has been associated with the Contract Drilling Department as Mr. Martin's assistant since 1937.



SALEM "HERCULES" AUGERS FOR ELECTRIC DRILLS

Made To Withstand High Drilling Speed, Whip And Torsional Strain Of Electric Drills



Drills holes faster - Will not snap off shank or chip points - Outlasts four or five ordinary augers.

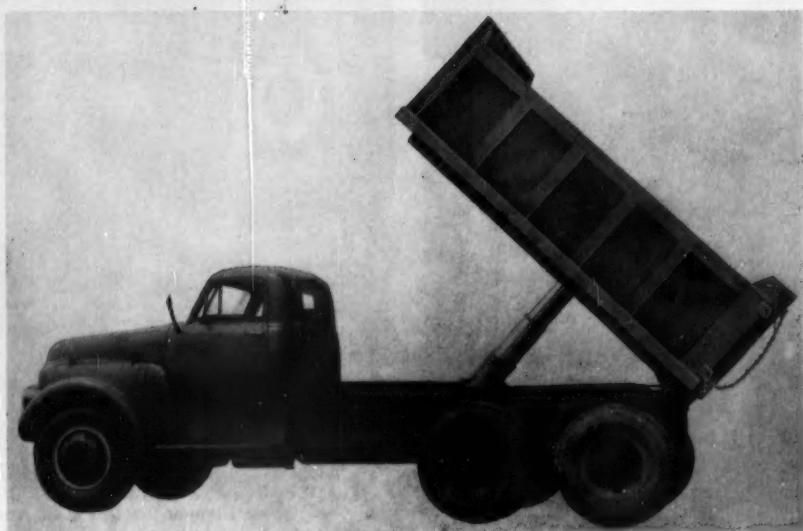
THE SALEM TOOL COMPANY

SALEM, OHIO, U.S.A.

● A new dump body-hydraulic hoist combination, which is reputed to carry up to 1,000 lbs. more payload than most units of similar size, is announced by The Galion Allsteel Body Company, Galion, Ohio.

Designated as Allsteel Body No. 12N-5 with Hoist No. 77353, the combination is especially advantageous for use in areas where strict weight laws are now in effect.

The 12N-5 body may be constructed of 10-gauge high-resistance steel or 12 gauge high tensile steel, in accordance with the customer's preference. Full length 6-inch wide running boards, box type side braces and corner posts are outstanding features. Head and tailgate are 6 inches higher than the sides. Understructure employs



Galion Allsteel 12N-5 body with Model 77353 hoist.

MOVERS OF COAL STRIPPING AND CONTRACTOR'S EQUIPMENT**HEAVY HAULING • RIGGING
MOORE-FLESHER HAULING CO.**

MOVERS of Coal Stripping and Contractor's Equipment

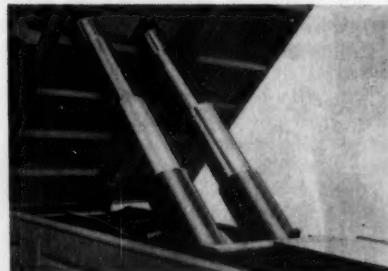
Preble & Adams Sts., North Side, Pittsburgh 33, Pa.

Phone ALlegheny 1-3600

4-inch channel crossmembers and 5-inch I-beam longitudinals.

Bodies are available in lengths to 14 ft. and capacities to 12 yards.

The Model 77353 hoist is of the 7-inch twin telescopic type and has capacity up to 23 tons.



Closeup of Galion Allsteel Model 77353 hoist.

A typical example of the weight savings and increased payload carrying ability of this combination is illustrated by the fact that the 14 ft. long, 12-yard, high-tensile steel body with hoist weighs only 4,065 lbs.

● A new bulletin on the Le Roi 600 CTM (compressor tractor mounted) points out that the recently introduced power take-off compressor is available for mounting now on any leading make of crawler tractor.

The two-page piece of literature

PUMPS • MACHINERY • SHOP EQUIPMENT

Quincy Air Compressors



Tranter
MANUFACTURING COMPANY

105 Fort Pitt Blvd. Pittsburgh 22, Pa. Court 1-0600

describes the unit as: "A crawler with weak, worn tracks incapable of producing enough traction for dozing or scraping, usually has a good engine still worth saving. By mounting the 600 CTM on a 'tractionless' tractor, a newer crawler will be relieved of the expensive and slow job of towing a heavier harder to handle four wheel portable compressor."

Le Roi is the first manufacturer to introduce such a unit with a clutch and direct drive. The company is also the first manufacturer to offer a compressor of this type completely assembled.

Views of the 600 CTM show the unit mounted on a Caterpillar D8, a International Harvester TD 24, and show it unmounted without the protective tubular steel frame.

Specifications and a graphic representation of tool capacities is included too.

Designation of The Philadelphia & Reading Coal & Iron Company as exclusive licensee for manufacture and distribution of the first packaged fuel product developed by the Anthracite Institute's Laboratory was announced here today (Monday, August 16, 1954) by Edward G. Fox, P & R president.

The anthracite-derived product, already being marketed under the trade name, "Bonnie Burns Briquets," is a new fuel for all types of grills and fireplaces. Initially introduced in May by the Anthracite Institute, it is now being distributed in the East at the rate of several thousand packages a week, through various large retail outlets.

Packaged in smart, cellophane-wrapped two-pound cardboard boxes which act as starters to ignite the briquets, the modern new product eliminates fuel handling, any need for kindling fuel, saves time and provides absolute cleanliness.

Mr. Fox said P & R's sales department has begun to set up additional retail outlets for the product as the result of its initial reception by the public. He pointed out that currently manufacture will be continued in the Anthracite Institute Laboratory at Wilkes-Barre and later at or near Pottsville.

The P & R executive described the new briquets as a blend of finest natural fuels, including the finer sizes of Famous Reading Anthracite.

PAGE DRAGLINE BUCKETS

Geo. L. Wilson & Co.

Office & Warehouse - 310 Mendota St. - Pittsburgh 12, Pa. - CEDAR 1-7710

SCOTTDALE MACHINE, FOUNDRY & CONSTRUCTION CO.

DEPT. CM

BOX 51

SCOTTDALE, PA.

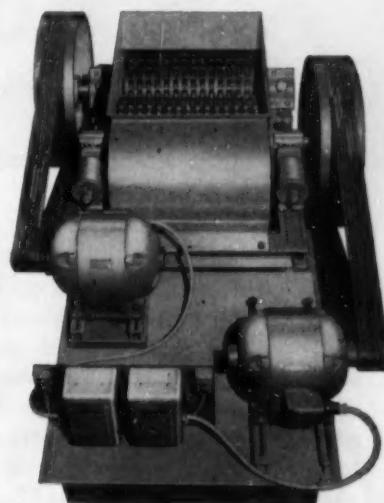
DOUBLE ROLL

COAL CRUSHER

EFFICIENT . . . produces a more uniform product!

ECONOMICAL . . . uses less power!

BOOSTS . . . sales—profits!



NO. 63 SPECIAL — 2 Motor Drive — Produces a Product $\frac{3}{4}$ " to 8". Equipped with Two Grooved Flywheels. (No Gears)

Efficient and practical the shredding action of the crusher's tooth studded double rolls turns out a more consistent product. Quality produced forged steel tooth gears, welded steel base, bronze bushed journal bearings, welded steel hopper and grooved flywheels.

**NOW at
BECKWITH
MACHINERY COMPANY**

**BONDED
BUY**

USED EQUIPMENT

Item WV-105 Caterpillar Model D8 Tractor Mounted with Caterpillar Model 88 bulldozer and LeTourneau Double Drum Cable control, equipped with crankcase guard, front pull hook and canopy top. Installed new pistons, rings and complete valve job on starting motor. Installed new pins in master clutch, adjusted steering clutches and entire unit has been cleaned and painted. This unit is in good condition. F.O.B. Clarksburg, West Va.

BUY AND TRY \$87,000.00

Item C134 Caterpillar D8 Diesel Tractor, equipped with Caterpillar 8A cable blade and No. 25 cable control unit. New track roller installed, one new sprocket ring installed. Machine has canopy top, crankcase guard, new paint. F.O.B. Clarksburg, West Va.

CERTIFIED BUY \$8,500.00

Item C-191 Caterpillar D7 Diesel Tractor, equipped with LaPlant Choate Hydraulic angledozer, radiator guard, crankcase guard, front pull hook, canopy top, track, rollers, idlers and sprockets, good. New Paint and Decals. F.O.B. Clearfield, Pa.

BONDED BUY \$12,500.00

Item C-142 Caterpillar D6 Diesel Tractor 60" gauge, equipped with LaPlant Choate hydraulic angledozer, crankcase guard, track roller guards and front pull hook. F.O.B. Clearfield, Pa.

CERTIFIED BUY \$6,000.00

Item WV-106 Caterpillar Model D2-50" tractor, equipped with crankcase guard, track carrier rollers and 16" grouser tracks. Installed new final drive pinion and new sprocket and relined steering brake, left side. This entire unit has been cleaned and painted and is in excellent condition. F.O.B. Clarksburg, W. Va.

BONDED BUY \$2,500.00

Item C-128 Caterpillar D2-50" Diesel Tractor, with D2N Hyster Winch crankcase guards, pull hook, track roller guards, radiator guard, side mounted fuel tank, Good Condition. F.O.B. Clearfield, Pa.

CERTIFIED BUY \$3,500.00

Item P-184 Caterpillar D13000 Engine completely rebuilt — removed from shovel installation (Fan to flywheel), F.O.B. Pittsburgh, Pa.

BONDED BUY \$4,100.00

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MACHINERY COMPANY**

6550 Hamilton Avenue, Pittsburgh, Pa.
361-369 Congress St., Bradford, Pa.
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We have often published this statement: "J. T. FISH is always open to buy." We are able to live up to this pledge because we operate a diversified, large volume business on a small margin of profit.

Just as we guarantee an unfailing source of mining equipment and supplies at bargain prices to our customers we guarantee fair prices for whatever you have to offer.

WE OWN WHAT WE ADVERTISE

All types of Joy Cutters, Loaders, Shuttle Cars, Cat Trucks, Belt Conveyors, Chain Conveyors, etc. Includes:

- 1—Jeffrey 29U rubber tired Cutter.
- 1—Joy Continuous Miner, low vein.
- 2—14-BU low pedestal Loaders, 10 H. P. motors, type 7AE.
- 2—14-BU, med. pedestal Loaders, 10 H. P. motors, 7 RBE.
- 2—14-BU, 3PE, med. pedestal Loaders, 7½ H. P. motors.
- 1—12-BU, 9E latest type Loader.
- 2—8-BU Loaders, one 33½" high.
- 2—11-BU Joy Loaders, hi capacity.
- 2—Joy T2-5 Cat Trucks, low pan. 1—T2-6.
- 1—Joy T1 Standard Cat Truck.
- 1—Goodman 20' Belt Conveyor, 1000' centers.
- 2—Joy 30' Belt Conveyors, 1000' and 2000' centers. Like new.
- 4—Joy 11B low vein Cutting Machines, 35 and 50 H. P.
- 6—Jeffrey 35L Cutting Machines, 250 volt DC.
- 2—Joy 6 SC four wheel drive Shuttle Cars, rebuilt. Elevated discharge.
- 2—Joy 5 SC four wheel drive Shuttle Cars.
- 4—32E15 Shuttle Cars, all hydraulic.
- 4—42E Shuttle Cars, as is or rebuilt.
- 10—32E9 Shuttle Cars, as is or rebuilt.
- 2—Joy PL11-14 Elevating Conveyors, rebuilt.
- 2—Joy Belt Feeders PL12.
- 3—Myers Whaley No. 3 Automat Loaders.
- Jeffrey L-50 Loaders.
- Goodman 360 Loaders.
- Cedar Rapids portable 3 track tipple complete with conveyors. Like new.

WE BUY — SELL — TRADE

Thousands of other Items

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LOGAN, WEST VIRGINIA

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**NEW AND REBUILT
STORAGE BATTERY
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Any Size Any Track Gauge

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IMMEDIATE DELIVERY

200 Tons — 90 lb.
ARA SECTION RELAYING RAIL
with Angle Bars

100 Tons — 80 lb.
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with Angle Bars

100 Tons — 16 lb.
RELAYING RAIL

Complete inventories of all weights Rails, Spikes, Bolts, Tie Plates and switching materials.

WRITE — WIRE — PHONE
SONKEN-GALAMBA CORP.
2nd and Riverview (X-179)
Kansas City 18, Kansas
ATwater 9305

3-Model 23FDT and 1-Model 4DFDT Euclid Bottom Dump Trucks (Coal Haulers) in above avg. operating condition. Haulage distance was only 1 mi. over hard surface rd. Bin loaded — no damage to bodies. Tires 80% of new.

Also 1-Allis Chalmers HD15 Diesel Crawler Tractor Grader Builder No. 144. Has performed no heavy digging. Only operated approx. 500 hrs. to compact and control coal storage pile.

Priced low for quick sale.

Contact

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Old Ben Coal Corp.
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Advertisers' Index

COAL MINING

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Allis-Chalmers—Tractor Divisions	7
Agency—Bert S. Gittins	
Anderson Equip. Co.	5
Bassler Equip. Co.	5
Beckwith Machinery Company	
Insert between Pages 4 and 5	22
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ESCO Electric Steel Foundry Co.	24
J. T. Fish Co.	22
Foster Company, L. B.	23
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Gane & Co., S. E.	4
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Hoffmann & York, Inc.	
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Moore-Flesher Hauling Company	20
Ohio Machinery Co.	Insert between Pages 4 and 5
Agency—Hoeler Advertising, Inc.	
Salem Tool Company, The	1-20
Agency—Meek & Thomas, Inc.	
Scottsdale Mach. Foundry & Const. Co.	21
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CONTINUOUS MINING?

Want 6 hours or more
actual loading time per
shift?

LONG
PIGGYBACK
CONVEYOR SYSTEM

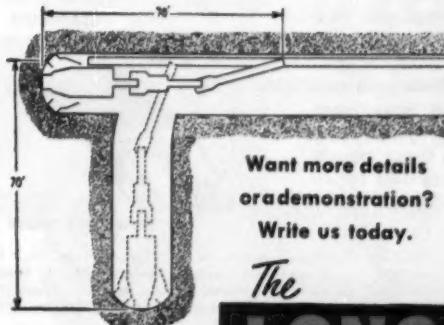


The Industry knows this to be a fact—by actual time studies, up to six hours actual loading time per shift is not unusual with the Long Piggyback* System—even when it is operated with mobile loaders in two or more rooms.

Now—this unique system offers the same advantages when used with any type continuous mining machine. The Long System utilizes practical, low-investment, low-maintenance chain conveyor equipment that has been proven in service. With the Piggyback System, enough potential advance can often be provided to allow operation of an entire shift without interruption.

* Trade Mark

The LONG Piggyback System for Continuous Mining



Want more details
or a demonstration?

Write us today.

The Piggyback System can be applied to any present-day continuous miner, with or without the mobile self-loading conveyor (or loader). When the self-loading conveyor (or loader) is included, reaches extended to 70 feet from the room pan line in any direction and individual pan-ups of 60 feet become practical.

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Now! FASTER DIGGING



YARDAGE GOES UP! COSTS GO DOWN!

ESCO® Box Points and Adapters on your hoe bucket, dragline, dipper, clamshell, tractor loader and ripper make possible faster digging, at less cost, with minimum downtime. Heat treated and differentially hardened for shock and abrasion resistance, ESCO Box Points stay sharper, last longer and cost less than solid teeth. And ESCO Adapters outlast many changes of points. Correct adapter pitch results in higher digging efficiency.

With ESCO Adapters on your equipment, installing or changing points is a simple matter. Only 2½ minutes to remove and only 2½ minutes to install a set of 4 sharp ESCO Box Points. Downtime is all but eliminated.

ESCO Box Points are available in 6 point shapes (five different sizes, widths 3" to 7"), each designed for specific digging conditions. Now you can select the right point for maximum digging efficiency on any job. Your ESCO dealer can furnish these points and adapters for all makes and types of buckets.

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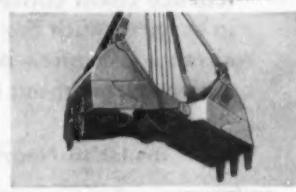
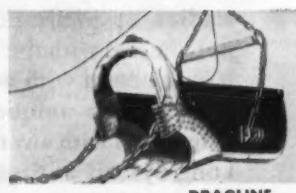
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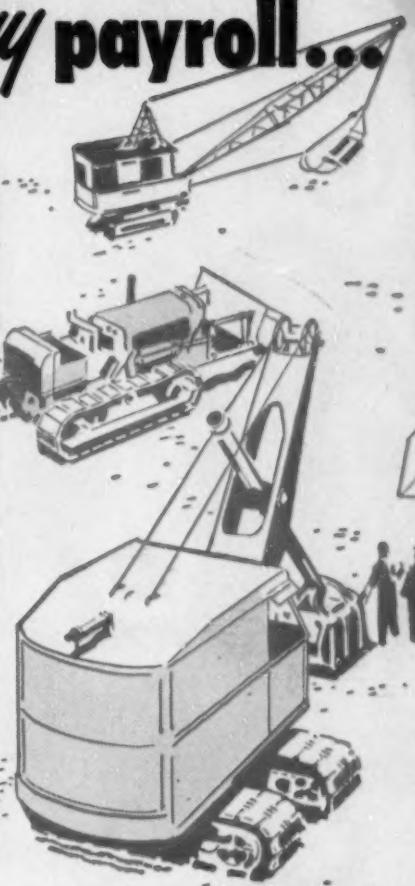
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COPY OF**

*"Lower Cost per Yard
with ESCO Box Points
& Adapters"*

this man is on the *Highway* payroll...



but he works for **YOU!**

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Every Highway representative possesses an extensive background of sound equipment experience. Each has been carefully trained in manufacturers' plants and in Highway's own equipment school. Each is eager to serve you at any time.

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Pittsburgh, Pa.

Can you afford a fleet of part-time equipment?



One way to beat falling dirt prices and rising competition is to keep your equipment working efficiently *all* the time.

The dirtmovers you now have probably can be used profitably on only one kind of job. If another type of job comes along, you have to pass it up. Or you buy special machines and let your original fleet sit idle. Or perhaps, just to keep busy, you take a job for which your rigs aren't suited. In any case, your costs go up and your profits down.

Converts to fit any type of work

LeTourneau-Westinghouse offers you the solution for this common problem. Behind the same high-speed 2-wheel prime-mover which powers a Tournapull scraper, you can interchange 4 other trailing units. For $\frac{1}{4}$ of original price, you can add rear-dump hauler, bottom-dump hauler, flat-bed trailer, or crane to your fleet. When you finish one job, you can quickly switch from one trailing unit to another. This way, you handle a wide range of assignments with machines designed to handle those jobs. Your prime-mover, representing 75% of your equipment investment, works full-time.

Work longer seasons

Furthermore, you can start earlier in the season and work later with LeTourneau-Westinghouse equipment. Power steer that "walks" Tournapull out of mud, plus unique power-proportioning differential that automatically delivers up to 80% of the tractive effort to the drive wheel on firmest footing, lets you work in wet weather which stops other earthmovers.

CONSTRUCTION BULLETIN

NO CONTRACTOR can hope to compete today, under present levels of costs and present levels of bidding, unless his machinery is up to date and at peak efficiency.

This one simple factor should, in itself, be sufficient to discourage bidding on the scale of a year ago regardless of how anxious the individual contractor is to keep men and machinery working.

In Perspective

Out-of-date and obsolete machines will not perform economically enough nor efficiently enough to sustain too low unit bids. New machinery, at present day costs, makes too high a gamble out of anything but carefully considered costs, plus a reasonable margin for both profit and the unexpected.

The high efficiency of our modern construction machinery has multiplied productivity. This means fewer machines, fewer men and fewer contractors can do the available work. In turn this means highly competitive bidding, but should not mean destructive bidding . . . not if the contractor uses his experience to guide him.

This is no time to do tight-rope walking in the matter of bidding. Good, safe margins should be allowed which, in turn, will take care of obsolescence and depreciation and provide for the replacement of worn out equipment. It is far wiser today to take a low trade-in price on old machinery than to attempt to make that machinery compete in the field with newer equipment or, what is even tougher, compete with too low unit prices. The contractor who bids too low sets up the most destructive of all competition for himself, as well as others.

Put yourself in the best possible competitive position by replacing your obsolete equipment with modern, electric-control machines.

Ask for a demonstration

Get all the facts. Compare. We believe you'll see why LeTourneau-Westinghouse owners have the best insurance for tough competition!

Tournapull—Trademark Reg. U.S. Pat. Off. G-640-G-6



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Water St., NEW PHILADELPHIA,
PENNSYLVANIA (Pottsville Region)

5105 Paxton St.
HARRISBURG, PA.